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13TH SCIENTIFIC SESSION OF THE UKRAINIAN SCIENTIFIC RESEARCH INSTITUTE OF EYE DISEASES IMENI PROF. L. L. GIRSHMAN

by K. G. Vayner and F. G. Pis'mennaya

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13TH SCIENTIFIC SESSION OF THE UKRAINIAN SCIENTIFIC RESEARCH INSTITUTE OF EYE DISEASES IMENI PROF. L. L. GIRSHMAN

Following is a translation of an article written by Candidate of Medical Sciences K. G. Vayner and Scientific co-worker F. G. Pis'mennaya in Oftal' mologicheskiy Zhurnal (Ophthalmological Journal), Vol. 15th year, No. 3, Odessa, 1960, pages 187-192.7

The 13th Scientific Session of the Ukrainian Scientific Research Institute of Eye Diseases im. Prof. L. L. Girshman took place from 22 to 25 September 1959 in Khar'khov.

In all 278 persons, including 182 nonresidents, took part in the work of the session. From the Ukraine there were 190 persons; from the RSFSR, 61 persons; the rest from the union republics: Azerbaydzhan, Georgia, Belorussia, Uzbek Moldavia, and Kazakhstan and from the autonomous republics: Komi, Yakutsk, Chuvash, and Udmurt.

Representatives of the ophthalmological institutions of 94 cities of the Soviet Union (Moscow, Leningrad, Kiev, Odessa, Smolensk, Stalingrad, Arkhangel'sk, Stalinsk-Kuznetskiy, Khabarovsk, Samarkand, Novosibirsk, Chelyabinsk, Yakutsk, etc.) were present at the session.

Among those present were: 27 professors, doctors of science; three associate members of the Academy of Medical Sciences USSR and one associate member of the Academy of Sciences USSR; four honored scientists; four honored physicians of the republic; seven docents; 40 candidates of medical sciences; 56 heads of opthalmic departments.

In his introductory remarks the director of the institute -- Honored Scientist UKSSR and Associate Member of the AMS USSR, Professor I. I. Merkulov, greeting the assemblage, indicated that all the achievements, as well as the prospects of the next seven years, should be reast the prospects of the participants of the session. flected in the reports of the participants of the session.

The program of the session included general biological problems, and problems of theoretical and clinical

ophthalmology and neuro-ophthalmology.

Honored Scientist, Associate Member of the AS USSR Professor V. H. Nikitin (Kharikhov) presented "The Contemporary Condition of the Problem of Fundamental Ways of Developing a Theory of Ontogenesis."

The problem of prolonging life is closely connected to the successes of contemporary physics, physicochemistry and

biochemistry, physiology, and medicine.

At the present time experimental work has revealed some rules for the improvement of the value of regeneration of protoplasm. The significance of preserving the valuable trophic nervous system was also shown. This information is of great significance for the creation of basic theory of

ontogenesis.

The report "On Reticular Formation in the Light of Clinical Ophthalmology" was given by Prof. G. D. Leshchenko (Kharikhov); he reported on the connections of reticular formation to anatomy and physiology and on the influence of this formation on the organ of sight in the normal and pathological states. The opinion was expressed that the cortical ends of the analyzers (including the eyes) can be irritated through reticular formation.

"On the Pathogenesis of Dystrophic Processes in the Eye" was reported by Prof. N. N. Zayko (Odessa). The author conducted functional and morphological investigations of animals whose trigeminal nerves had been cut. The author explains the appearance of changes in the eye by a

disturbance of the trophic process.

Associate Member of the AMS USSR, Prof. V. N. Arkhangel'skiy (Moscow) presented the report "On the Physiology and Pathology of the Retina in Connection with the Appearance in It of Substance."

In the report the problems of metabolism, blood supply of the retina, and the role of the choroids in the act of vision were illuminated from a new position. Some results of a study of interstitial substance in clinic and experiment were presented.

In the communication of Prof. A. A. Kolena (Novosibirsk) were presented some concepts for the understanding of "Pathogenesis, Etiology, and Further Study of Ailments of the Retinal Membrane." Concepts of abiotrophy, collagenosis, and elastosis, as well as the role of anoxemia and anoxia, emerge as important factors, explaining many pathological processes in the retinal membrane.

Contemporary conceptions of collagenosis as a systemic illness in which changes in the noncellular portion of the connective tissue are observed are evidently of significance for an understanding of some forms of pathology of the

of the retinal membrane as well.

Doctor of Biological Sciences Ye. N. Semenovskaya, Doctor of Biological Sciences A. I. Bogoslovskiy, and Prof. G. Ya. Khvoles (Moscow) reported "On the Participation of the Cortex and Subcortical Region in the Act of Development of Visual Conditioned Reflexes."

The report "On the Application of Luminescent Analysis in Ophthalmology" was presented by the Head Ophthalmologist of Mindzdrav (Ministry of Health) USSR, Prof. Ye.

B. Rabkin (Moscow).

"On the influence of the Stimulation of Distance Accommodation on Visual Acuity and the Refraction of the Eyes in Anisometropia" was communicated by Prof. U. Kh. Musabeyl' and Candidate of Medical Sciences K. A. Adigezalova-Polchayeva (Baku). The authors propose, on the basis of the research they have conducted, that the adjustment of the eyes to a distance represents an active adaptation of the organ of sight, and not passive accommodation.

Doctor of Biological Sciences A. I. Bogoslovskiy, Doctor of Medical Sciences R. A. Garkavi, and Doctor of Biological Sciences Ye. N. Semenovskaya (Moscow) shared in the presentation of data on "Electrophysiological Investigations of Detachment of the Retina." A study of electroretinograms and electroencephalograms revealed some regularity and, together with this, showed that at the present we can only cautiously judge the prognostic and diagnostic significance of these methods in the case of detachment of the retinal membrane.

"On the Resorptive Function of the Cilliar Processes" was a report presented by Prof. M. Ya. Fradkin, Doctor of Medicine A. Ya. Vilenkina, Candidate of Med. Sci. L. Ya. Itsikson, and scientific co-workers Ye. S. Vaynshteyn and G. S. Zarubin (Moscow). On the basis of a study of glaucoma patients by the method of gonioscopy, as well as experimental investigations of rabbits, the authors came to the conclusion that atrophy of the ciliar processes, which appears to be a manifestation of a disturbance of the trophic processes of the tissues of the eyes, plays a definite role in the mechanism of an increase in intra-occular pressure.

A number of reports were devoted to a study of pathenogenesis and therapy of radiation cataract in clinic and experiment.

In the communication of Prof. N. A. Vishnevskiy, V. M. Abdulayev, Ye. A. Ibanov, and V. N. Stiksova (Moscow) data were presented "On Some Changes of the Crystalline Lens Which Were Observed Upon Biomicroscopic Examination of Healthy People." A careful and through examination of a

significant number of persons of various age groups revealed a whole series of fine changes of the crystalline lens in completely healthy people -- changes which previously were often treated as the initial changes in

radiation cataract. V. A. Yefet (Stalingrad) presented material on a study of "Lipoproteins of the Crystalline Lens in the Norm in the Case of Senile Cataract in Humans and in X-ray Cataract in Rabbits." The research conducted by the authors permitted an assumption that the pathogenesis of these cataracts and the biochemical changes in them are different. senile cataract a significant accumulation of cholesterol and phosphatides occurs, leading to an opacity of the fibers. In X-ray cataract the opacity of the fibers apparently occurs on account of a direct harmful action of X-rays on living protoplasm.

The results of the use of "Subconjunctival Oxygen-Therapy in Experimental X-ray Cataracts: were indicated in the report of Prof. A. B. Kolen'ko (Kalinin). Observations showed that oxygen therapy in the early periods after the action of radiant energy shows no effect, as a result of the increased permeability of the capillaries. In the later stages, when the sclerotic changes of the vascular walls lower the permeability, a local introduction of oxygen acts

favorably.

Some problems pertaining to tuberculosis of the eyes were presented in two reports; in one of them, Prof. N. S. Azarova and Associate Member of the AMS USSR, Prof. A. Ya. Samoylov (Simferopol', Moscow) reported on "Metastatic Tubercular Uveitis and Its Treatment." On the basis of an analysis of their own large body of clinical material, the authors confirmed the expediency of the use in cases of tuberculosis of a complex treatment, including antibacterial, desensitizing, and local symptomatic remedies. It is recommended that the treatment be conducted until a stable desensitization of the organism.

In the other report, Candidate of Med. Sci. G. F. Tetina (Simferopol: indicated the results of experimental investigations of "Latent Persistence of the Microbacteria of Tuberculosis in the Vascular Membranes of the Eyes of Infected Animals." The persistence of detritus in the vascular membranes of the clinically healthy eyes of guinea pigs infected by tuberculosis led to the development of inflammatory changes in the eyes of the experimental

animals.

Various problems of traumatology constituted the content of a number of reports.

"On Burns of the Eyelids by Napalm" in experiments was

reported by N. A. Ushakov (Leningrad). Conservative treatment of such burns with levomycetin oil and surgical treatment with loose skin grafts have proved effective.

S. F. Shershevskaya (Stalinsk-Kuznetskiy) reported "On the Characteristics of the Histomorphological Reaction of the Tissues of the Eyes to Intraoccular Fragments of Certain Nonferrous Alloys."

Various allpys exhibit heterogeneous effects on the tissues of the eyes. Localization of the fragments is also of significance for the development of the various

effects.

Prof. I. F. Kopp and Asst. A. I. Gmyrya (Stalino) recommended sclero-sclerotic suture as a method of hermetization of wounds during operations on the anterior segment of the eyeball. The use of these sutures is indicated, in the opinion of the authors, during extractions of cataract, removal of foreign bodies, etc.

In the report of P. G. Krasnikova (Stalino) data were presented on "A Pathological Study of the Effectiveness of Shallow and Open Sutures in Cases of Incised Wounds of the Sclera in the Region of the Ciliary Body." The author believes that open sutures should be more widely used in the treatment of wounds of the sclera in the region of the ciliary body.

"On the Direct and Remote Results of Surgical Treatment of Traumatic Cataracts" was reported by Ye. G. Mar (Minsk). Observations made in clinic indicated a predom-

inance of early surgical intervention.

Cand. of Med. Sci. S. N. Smirnov (Kiev) proposed a method of roentgenization of foreign bodies in the eye. In order to determine the dimensions of the eyeball, special aluminum prosthetics of various sizes are recommended.

The content of a report by Prof. S. Kh. Akhundova-Bazirbekova and Junior Scientific Co-worker Sh. R. Safarl' (Baku) was an explanation of "Current Methods of Treating Burns of the Eyes." They indicated the favorable action of oxygen therapy and naphthalane-phytoncide emulsion and phytoncide preparation in the treatment of burns of the eyes.

A large place in the work of the session was occupied

by the problem of glaucoma.

In the report entitled "Glaucoma -- an Allergic Ailment" Prof. N. G. Khramelashvili (Tbilisi) expresses the opinion that the chronic increase of the residual and polypeptide nitrogen in the blood in the majority of glaucoma patients creates a prerequisite for an allergic condition of the ciliary body. This condition depends on an increase in the permeability of the vessels of the ciliary body, which can

lead to an increase in the intraoccular pressure.

Prof. S. F. Kal'fa (Odessa) communicated in a report his observations of several years; standing on the intraoccular pressure in cases of glaucoma and emphasized the necessity for dynamic research on intraoccular pressure. Just such research would allow us to obtain reliable data for diagnosis and for conclusions on the prognosis of the ailment and on the influence of therapeutic measures and indications for surgical intervention. The author insists on a very rapid introduction into practice of the electroelastotonograph.

Prof. A. I. Dashevskiy (Dnepropetrovsk) reported on the problem "On Tonometry and Tonography in the Diagnosis and Treatment of Glaucoma." The author believes that the diagnostic test he proposes permits a more objective determination of the true intraoccular pressure for

diagnostic purposes.

For facility in research Prof. Dashevskiy proposes a new construction of the tonograph (a reconstructed reacto-

tonometer).

Prof. N. I. Medvedev (Samarkand) reported "On the Treatment of Persons with Suspicion of Glaucoma and with the Initial Symptoms of the Disease." A cumulative experiment by the author permitted the formulation of a number of recommendations for the treatment of persons with a suspicion of glaucoma and in the initial stages of the disease.

The report of Prof. M. E. Kashuka and N. F. Bykova (Vitebsk) contained "New Experimental and Clinical Data on the Effectiveness of Fistulizing Drainage of the Anterior Chamber in Glaucoma." The effectiveness of this operation was followed up by the authors over a long period of time.

Docent N. V. Kositsyn (Irkutsk) reported on his observations on operations of trepanocyclodialysis with posterior trepanization of the sclera in cases of glaucoma. This combination of operative measures, according to the reporter, was effective in all stages of glaucoma, if conservative therapy does not give a normalization of the pressure.

"On the Utilization of White Light in the Complex Treatment of Glaucoma Patients" was reported by scientific co-

worker A. A. Yakovlev (Moscow).

The problem of transplanting of the corneal membrane was treated in the report of Prof. I. G. Yershkovic (Khabarovsk), who shared his experiment on the "Partially Open Transplant of the Corneal Membrane: in the clinic of Khabarov Medical Institute. The author recommended that, to avoid the development of amblyopia, this operation be used in the earlies periods after the formation of corneal spots.

Honored Physician UkSSR, Candidate of Medical Sciences

S. P. Petrunya (Lugansk) presented a classification of varieties of corneal spots and the indices he had developed

for repeated transplant of the cornea.

The reports of Cand. of Med. Sci. N. I. Pil man (Kiev) and Cand. of Med. Sci. S. Ya. Miminoshvili (Sukhumi) were devoted to methods of surgical treatment of strabismus. In the first report material was presented on the effectiveness of surgical intervention in the complex treatment of concomitant strabism in children with anomalous correspondence of the retina; in the second a new modification of the operation of recession in concomitant strabism was described.

"On the Success of Surgical Treatment of Detachment of the Retinal Membrane" was reported by Prof. N. Ye. Braunshteyn (Khar'khov). The author believes that the most effective operation for shortening the sclera is the resection of a strip of its outer layer in conjunction with diathermal coagulation and the use of nonresorptive poly-

vinyl sutures.

Prof. O. I. Shershevskaya (Stalinsk-Kuznetskiy) reported "On the Clinic of Rheumatic Affection of the Retina and Its Vessels." The process, according to the observations of the author, occurs according to the type of panvasculitis and perivasculitis. In connection with the fact that in rheumatics an occult flow of the retinovasculites is possible, dispensary control of the condition of the occular fundus in these patients is recommended. Active therapy in these ailments gives good results.

In the report of Prof. F. I. Yuzefova (Kiev) data were presented on phacogenic uncitis and its treatment. This form of the ailment is ascribed by the author to the so-called mixed form of uveitis. The most sensible method of treatment of phacogenic uncitis appears to be operation --

the extraction of the cataract.

The problem "Of Change in the Eyes in Cases of Thyrotoxicosis" was the subject of the report of Dotsent N. T. Gerasimenko (Kiev). The results of a careful study of functional changes in the organ of sight in goiter of the second, third, and fourth degrees among 246 patients were presented.

Prof. I. N. Kurlov (Kishinev) reported on his copious experiments on blepharoplasty and restorative ophthalmosurgery. In plastic surgery the authors made wide

use of heterogeneous tissues.

In the report of Prof. A. B. Katsnel'son and L. I. Blinova (Chelyabinsk) data were presented "On the Vitamin C Content in the Normal Human Cornea and in That Altered by Disease." Research established the important role of vitamin C in the physiology of the cornea and in its patho-

logical changes. A broad application of ascorbic acid in the therapy of inflammatory and degenerative ailments of the

cornea was proposed.

Ye. M. Orlova (Moscow) reported "On the Use of Contact Lenses for the Correction of Vision." Preliminary experiments conducted in the laboratory of the Institute im. Helmholtz indicated that in many ailments of the visual organ contact lenses are the only means of correction.

The communication of M. M. Zolotareva and Docent G. I. Mar (Minsk) pertained to the problem "Of Inflammatory Ail-

ments of the Eyes of an Adenoviral Nature."

On the basis of clinical and experimental research the authors treat discoid keratitis and uveitis as ailments of an adenoviral nature. For the treatment of similar ailments of an adenoviral nature. For the treatment of similar ailments complex therapy was used with general and local application: sulfamides, antibiotics, often in conjunction with cortisone and vitamins, and calcium glutamate.

In the report of Prof. N. I. Artem'yev and F. Kh. Kapkayeva (Astrakhan') data were presented "On the Preparation of Patients for Operations with Opening of the Eyeball."

"An Evaluation of the Reaction of Agglutination of Bacteria Contaminated by Virus (Reaction AVB) for laboratory Diagnosis of Trachoma: was reported by Doctor of Medical Sciences L. B. Zats, Asst. I. D. Druzhinin, Asst. N. V. Strongovskaya, and Senior Technician L. V. Ozhigar (Stalino).

The observations of the authros confirmed the diagnos-

tic value of reaction AVB for trachoma.

Two special sessions were devoted to reports in the division of neuro-ophthalmology.

In a number of reports data were presented on the

pupil and methods of investigating it.

Associate Member of the AMS USSR Prof. A. Ya. Samoylov and A. R. Shakhnovich (Moscow) illuminated the problem of "Specific Orienting and Protective Reactions of the Pupil." With the aid of the method of local pupillography, these two types of meactions of the pupil permitted an estimation of the level of formation of the reflexes of the pupil. The protective reflex has a lower localization—in the subcortex—while the orienting reflex appears to be localized in the cortex.

For the study of the act of conversion, Associate Member of the AMS USSR Prof. A. Ya. Samoylov, Cand. of Med. Sci. O. N. Sokolova, and A. R. Shakhnovich (Moscow) used a pupillograph. Research conducted with the aid of a method specially developed by the authors made it possible to evaluate objectively the speed and regularity of the movements of the eyes and the corresponding reactions of the

pupils during the accomplishment of the act of conversion.

A. R. Shakhnobich (Moscow) demonstrated the inkwriting apparatus he constructed for the inscription of

pupillograms.

"On the Clinical Significance of the Pupils in the Tonic Reaction" was reported by Cand. of Med. Sci. S. Ya. Fridman (Moscow). The author proposes that the tonic reaction of the pupil, together with other clinical manifestations, appears as a result of encephalitis, which affects the interstitial and middle sections of the brain.

The content of the report of Prof. M. Z. Polov (Smolensk) was "Problems of Pathogenesis of the Engorged Papilla." The author presented current data confirming his assumption of a rhythmic cerebral theory of the pathogenesis of the engorged papilla.

Prof. P. S. Plitas (Kiev) reported "On the Recognition of Paralysis of the Eye Muscles on the Basis of a Study of Double Images." The author proposed his scheme of double images, which is convenient for practical application.

The report "On the Diagnostic Evaluation of Investigations of the Most Important Functions of the Optic Analyzer in Some Types of Neuroinfections of the Central Nervous System: was made by Clinical Ordinator I. I. Bobrova (Stalino). According to the data of the author, the most sensitive diagnostic test for this type of ailment appears to be a dynamic examination of the dark adaptation.

"The Use of the Quantitative Dark Perimener in Neuritis of the Optic Nerve and Engorgement of the Papillae" was explained in the communication of V. V. Permyakova (Stalino). The significance of the quantitative perimeter for early diagnosis of ailments of the optic nerve apparatus

was emphasized.

In the report of Honored Scientist, Associate Member of the AMS USSR Prof. I. I. Merkulov and Cand. of Med. Sci. O. S. Turbovskaya (Khar'khov) were stated "Statistics of Ailments of the Optic Nerve, and the Role of These Ailments in the Etiology of Blindness", data were presented on the frequency, forms, and causes of ailments of the optic nerve according to the material of the dispensary and clinic of the Institute of Eye Diseases im. Prof. L. L. Girshman for the postwar period.

"On the Experimental Work of the Neuro-ophthalmologists of Yakutsk" was reported by Honored Physician Yakutsk

ASSR S. A. Titov (Yakutsk).

In the report of Cand. of Med. Sci. R. Z. Kopit and Cand. of Med. Sci. A. S. Novokhatskiy (Khar'khov) data were presented "On an Investigation of the Centrifugal Fibers of the Optic Nerve." This research permits us to confirm that

in the trunk of the optic nerve of the rabbit there are nerve fibers which go in a centrifugal direction. There are significantly less of these fibers than of the centripetal fibers.

Cand. of Med. Sci. L. S. Berggryun (Smolensk) reported "On the Morphology of Reactive Changes of the Optic Nerve after Mechanical Irritation of It." Research has shown that the degree of pathological change on the part of the various fibers of the optic nerve varies: one of them is more sensitive, another less sensitive to mechanical influence.

The communication of Cand. of Med. Sci. Z. P. Zil'berman (Khar'khov) was devoted to "Tabetic Atrophy of the Optic Nerve." The author came to the conclusion that in tabetic atrophy of the optic nerve the pathological process is localized in the region of the middle cranial fossa and occurs most often according to the type of specific optochiasmal arachioiditis.

A report on the problem of "The Optic Nerve Genesis of Some Forms of Changes in the Field of Vision in Cases of Glaucoma" was made by Cand. of Med. Sci. L. G. Neglo

(Khar'khov).

Numerous observations indicated that some forms of disturbances of the field of vision in glaucoma patients can apparently be explained by an affection of the vessels of the optic nerve trunk.

Cand. of Med. Sci. Z. D. Kizel'man (Khar'khov) presented data "On Changes of the Optic Nerve in Disruption of the Circulation of the Brain." Most often affection of the optic nerve and disruption of the visual function was revealed in patients with arteriosclerosis, and more rarely in

cases of hypertension. "On Nodules of the Papilla of the Optic Nerve" was related by Cand. Med. Sci. Kh. I. Babenko (Khar'khov). The characteristic peculiarities of nodules were described, and the difficulties in the statement of a differential diagnosis of nodules, engorgement of the papilla, and papillitis were

indicated.

Results of the "Histaminic Test in Ailments of the Optic Nerve" were presented in the report of Cand. of Med. Sci. V. S. Drozdovskaya (Khar'khov). An increased sensitivity to histamine, especially pronounced in cases of neuritis of the optic nerve, was revealed. These data confirm the significant role of the allergic factor in the pathogenesis of ailments of the optic nerve.

Scientific co-worker M. M. El'kina (Khar'khov) reported "On Electroretinography in Affections of the Optic

Scientific co-worker N. V. Zhabotinskaya (Khar'khov) reported on the use of the method of "Critical Frequency of Fusion of Flashings in Ailments of the Optic Nerve Apparatus."

The research conducted indicated that this is a reliable method, with the aid of which, in many cases, changes can be detected in the field of vision which are undetectable by the method of the quantitative perimeter. This method also makes it possible to evaluate quantitatively the changes taking place in the optic nerve in the course of treatment.

Scientific co-worker G. I. Nemtseyev (Khar'khov) acquainted us with the method of "Measurement of the Time of Dilation of Visual Stimulation in the Normal and in Pathological Conditions of the Optic Nerve." The retinocortical time is an important index to the functional condition of the visual analyzer. A modified apparatus and a new method of investigation were proposed.

In the report of scientific co-worker O. N. Bakitskaya (Khar'khov) data were presented "On the Constants of the Cerebrospinal Fluid in Ailments of the Optic Nerve." Between the changes of the liquid and the seriousness of the affection of the optic nerve apparatus no parallelism was detected.

During the sessions a wide consideration of the reports evolved.

It was evident that a great number of ophthalmologists gathered at the session. This gives evidence of the great popularity of sessions of the Institute of Eye Diseases imeni Prof. L. L. Girshman.

In addition to the leading ophthalmologists and scientific workers of the country, practical physicians of distant cities and rayons took part in the work of the session. Such wide representation, in the opinion of those who reported, should contribute to the further development of Soviet ophthalmology.

Of the 65 reports heard at the session, 31 were presented by ophthalmologists of the Ukraine; the remainder by physicians of other republics.

The general biological reports heard at the session

were of great interest.

The problems of basic paths of development of ontophysiology, of reticular formation, of interstitial substance, of collagenoses, has recently taken on great significance; an acquaintance with the current state of these problems is essential not only for biologists but also for physicians of all specialties.

In a number of reports current problems of ophthal-mology were taken up, including the problems of glaucoma,

traumatism, ophthalmosurgery, and others.

Certain problems of the physiology of sight and neuroophthalmology were illuminated from many aspects. The latter has acquired even greater significance at the current stage, as a new branch of science.

In conclusion, the certainty was expressed that the consideration at the session of theoretical and practical problems will serve the further development of ophthalmology.